

Abstract:

The present invention relates to an imaging method and device for nuclear magnetic resonance. On the one hand, the method provides an image coding by means of an additional field which has, for each point of a two-dimensional grating surface within the sample, a different field strength value that occurs only once, as is the case, e.g., in fields based on fractal, surface-filling and space-filling curves. On the other hand, the read-out of the resonance behavior of a sample along a space-filling and/or surface-filling curve can be provided. In the first variant, a magnetic resonance (MR) image with a single high-frequency excitation without a time-varying gradient can be recorded, which in turn advantageously prevents the sound generation associated therewith. In the second variant, the sounds generated during read-out are advantageously shifted to another frequency range in which the human hearing is less sensitive. Furthermore, the device is relieved and the technical requirements with regard to it are reduced. In addition, it can be executed with known and existing devices.